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Building & Highway Material Testing Laboratory

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Job No.: CTCE/BBMP/W.No.13/KRIDL/WMM/Gradation/2014-15

05.02.2015

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Potholes filling in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : EE/DD/WO/177/2013-14 Dated: 20.12.2013

Date of Testing : 05.02.2015

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): 7250

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	155	155	2.1	97.9	95-100
22.4	2450	2605	35.9	64.1	60-80
11.2	1200	3805	52.5	47.5	40-60
4.75	855	4660	64.3	35.7	25-40
2.36	990	5650	77.9	22.1	15-30
0.600	520	6170	85.1	14.9	8-22
0.075	955	7125	98.3	1.7	0-8

Note:

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AE-13

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	Potholes filling in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	EE/DD/WO/177/2013-14 Dated: 20.12.2013
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	05.02.2015

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	378	379	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	78	79	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	300	300	
4	Aggregate Impact value = percent fines	20.63	20.84	
	100* (W_2/W_1)%			20.74

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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Job No.: CTCE/BBMP/W.No.13/KRIDL/WMM/S-T/2014-15 05.02.2015

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, Bangalore.
Name of Work	Potholes filling in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	EE/DD/WO/177/2013-14 Dated: 20.12.2013
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	05.02.2015

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Result : Flakiness Index = **12.32%**

Elongation Index = **13.95%**

Result : Combined Flakiness & Elongation index 26.27%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

Note:

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Job No: CTCE/BBMP/W.No.14/KRIDL/BC/Bitumen/2014-15

13.02.2015

BITUMEN CONTENT DETERMINATION OF BITUMINOUS CONCRETE MIX

As per IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	Potholes filling in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	EE/DD/WO/177/2013-14 Dated: 20.12.2013
SAMPLE I/D	Potholes Filling to roads in Ward No.13, BBMP, Bangalore.
DATE OF TESTING	13.02.2015

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474	473
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight or Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	26	27.00
7. Bitumen content in %	5.20	5.40
8. Average	5.30	

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Job No: CTCE/BBMP/W.No.14/KRIDL/BC/Bitumen/2014-15 13.02.2015

BITUMEN CONTENT AFTER GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

As Per IS 2386 and IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	Potholes filling in Ward No.13, in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	EE/DD/WO/177/2013-14 Dated: 20.12.2013
SAMPLE I/D	Potholes Filling to roads in Ward No.13, BBMP, Bangalore.
DATE OF TESTING	13.02.2015

GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
19	0	0	0	100	100
13.2	36.65	7.73	7.73	92.27	79-100
9.5	38.22	8.06	15.80	84.20	70-88
4.75	69.65	14.69	30.49	69.51	53-71
2.36	65.32	13.78	44.27	55.73	42-58
1.18	50.21	10.59	54.86	45.14	34-48
0.6	52.32	11.04	65.90	34.10	26-38
0.3	49.69	10.48	76.38	23.62	18-28
0.15	49.3	10.40	86.78	13.22	12-20
0.075	32.65	6.89	93.67	6.33	4-10

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
19	0	0	0	100	100
13.2	34.69	7.33	7.33	92.67	79-100
9.5	48.65	10.29	17.62	82.38	70-88
4.75	72.35	15.30	32.92	67.08	53-71
2.36	65.36	13.82	46.73	53.27	42-58
1.18	69.35	14.66	61.40	38.60	34-48
0.6	39.65	8.38	69.78	30.22	26-38
0.3	35.62	7.53	77.31	22.69	18-28
0.15	38.65	8.17	85.48	14.52	12-20
0.075	39.22	8.29	93.77	6.23	4-10

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